COMMENTS TO THE IMPACT ASSESSMENT AGENCY OF CANADA

From: Clair Balfour, a Meaford property owner whose land borders TC Energy's proposed pumped storage project site

Re IAAC Registry Number 89803

April 6, 2026

I am writing as a homeowner on the 7th Line in Meaford, Ontario, one of approximately 300 property owners—an estimated 800 to 1,000 residents—living directly below the planned 135-hectare reservoir that is central to TC Energy's proposed Pumped Storage Project on the 4th Canadian Division Training Centre (Project No 89803 for which the Initial Project Description was registered with the Impact Assessment Agency of Canada on February 24, 2026).

The IPD and its executive summary total 289 pages. Despite that length, the documents are noteworthy for one thing: their lack of concrete factual information. There are frequent references to studies initiated or undertaken by TC Energy, many as far back as 2020, but almost no actual data or findings from those studies are included. In regard to potential environmental harms, the IPD claims repeatedly that "mitigation measures"—no further details—will be taken if necessary or, more vaguely, if feasible.

There is no total cost affixed to the project, no definitive mode or route chosen for its transmission lines, no formal risk assessment and no plans whatsoever for emergency measures, evacuation or compensation in the event of a catastrophic failure. What then are member of the public supposed to comment on? This IPD is largely a declaration of incomplete plans for a multi-billion-dollar megaproject by a corporation with a questionable safety record that says: "Trust us."

It is unworthy of the IAAC and the current Canadian government to ask citizens—its own "shareholders," as the prime minister so eloquently put it—to offer "evidence-based" comment on a project that has been presented with such obvious disdain for due diligence, transparency and the issues at stake for those

whom it will most directly impact. I respectfully ask you to immediately stop this project as it is described in this inadequate IPD.

MISSING: AN ASSESSMENT OF RISKS TO PROPERTY AND HUMAN LIFE:

For the nearly 300 property owners who live directly below the proposed 135 hectare reservoir that TC energy wants to excavate on the military base atop the Niagara Escarpment, this project presents an unnecessary and potentially lethal threat. The company claims it will store and ultimately produce up to 1,000 megawatts of hydropower, no more than could be generated by less expensive and less environmentally-invasive means such as a series of grid-scale battery storage installations. While Ontario's Independent Electricity System Operator (IESO) has twice declined to greenlight TC Energy's Pumped Storage plans, it has approved more than two dozen battery systems with a total of triple the storage capacity. Yet in exchange for such an unremarkable output of electricity, this Meaford pumped storage project threatens to wipe out our homes, and very lives, in the event of any leak, breach, overflow or other catastrophic failure of its 4.5-kilometre ring dam. That dam would be designed to hold back 26 billion tonnes of water in the reservoir that will sit, quite literally, above our heads.

My family's home is only 700 metres east and downhill from the reservoir—174 metres above Georgian Bay--making it one of the closest private residences to that threat, and likely the first to be swept away by any such catastrophic failure.

To my shock—a shock that I'm sure would be shared by the Canadian public as a whole—the IPD fails to address the project's very real threat to human life and property. Nor does it present any protocols to trigger emergency measures or evacuation scenarios, or any provisions for reconstruction or restitution should such a tragedy occur.

In fact, the aerial maps and designs released by TC Energy largely fail to show the presence of any homes or farms in the vicinity, lending the illustrations a sterile quality that is vaguely surreal—and entirely inaccurate.

It is as if corporate executives and engineers were so entranced by their pipes, shafts, turbines and technical derring-do—proudly proclaiming their mission to provide for the anticipated energy needs of some future Ontario population—that

they forgot they could be endangering some actual present-day human beings (who also happen to be Canadian taxpayers).

As you can see from the aerial topographical maps provided by Hunter & Associates (H.3.1 and H.3.2 in the attachment), in the case of a dam overflow or breach, our 300 homes, farms and cottages all lie in the Torrential Flooding Hazard Zone below TC Energy's proposed reservoir.

Already, many of us have been told no company would insure us for a catastrophic loss like dam failure. (See my insurance broker's statement attached.) And once the overwhelming noise, dust and truck traffic of construction begins, there is little or no likelihood we could sell our properties or recoup investments that in some cases represent life savings.

No responsible government would allow a citizen to build a home below a hydro-electric power dam. Why then would this government even consider allowing a gigantic dam holding back an expanse of water nearly twice the size of Lake Louise to be built above more than 300 homes, some of them more than a century old?

As 2018 briefing notes for the Assistant Deputy Minister of Defence (obtained under an Access to Information Request) note, any legal liability for damage to property or human life lies not with TC Energy but with the "land owner" of record: the Department of National Defence.

Given that federal legal liability and DND's fraught history of battling class action suits from public citizens, why would the Canadian government allow such a hazardous and technologically outdated project to proceed?

I pose this question because the catastrophic failure of at least one pumped storage plant has already occurred. On December 14th, 2005, a series of manual and technical lapses failed to prevent the Taum Sauk Hydro-electric Power Station Dam in Missouri—once the largest pumped storage plant on the continent—from overflowing, provoking a triangular section of its 38-metre-high walls to collapse and sending more than a billion US gallons of water rushing down the slopes of Proffit Mountain in 12 minutes. The six-metre crest of that water wave devastated the state park three kilometres below and flooded land as far as seven kilometres away. Unlike in Meaford, there was only one home in its path, that of the state

park superintendent, which was swept away while he, his wife and three children were hospitalized with severe injuries, but survived.

An investigation later revealed a series of manual and technical failures that had allowed faulty sensors to prevent the dam from overtopping. The Federal Energy Regulatory Commission (FERC) fined the utility's owner $15 million, the largest fine in the agency's history at the time, and the company paid a reported $200 million in other legal settlements. (Wikipedia)

Another revelation: the reservoir had been built with no overflow spillway. That detail is relevant to Meaford's pumped storage project, since, according to the IPD, TC Energy has not firmly committed to constructing an emergency spillway, stating only that it is under "consideration." (Page 3-2 of the Executive Summary). Any such omission would greatly increase the project's threat to nearby private property and human life.

MISSING: SAFETY ASSESSMENTS AND EMERGENCY PROTOCOLS

The IPD makes no mention of conducting a flood risk assessment for what is essentially a gigantic and loosely regulated dam. While TC Energy states it will follow the guidelines of the Canadian Dam Association, that body is entirely voluntary since dam safety is not a federal responsibility. It falls to each province to administer widely varying regulations. In Ontario, the Ministry of Natural Resources oversees permits for location and construction specifications under the Lakes and Rivers Improvement Act, but does not require owners to conduct flood risk assessments and has no provisions for regular inspections and enforcement. According to a report by the Intact Centre on Climate Adaptation at the University of Waterloo, "This may pose a potential threat to the safety of Canadians as it may lead to outdated or inaccurate dam safety information." (Globe and Mail, October 7, 2020.)

This past winter a small private dam in Pinkterton, Ontario, on the Teeswater River in neighbouring Bruce County breached after rapid snowmelt and heavy rain resulted in what officials termed a "one in 100-year flood," inundating properties downstream in Brockton. But as municipal officials discovered after exhausting their own modest emergency reserves, the province refused to release funds from

its Disaster Recovery Assistance for Ontarians (DRAO). The Ministry of Municipal Affairs ruled that the failure did not qualify as a natural disaster; because the dam was privately constructed and owned, the disaster was deemed “man-made.” (www.insurancebusinessmag.com)

The same grounds would surely apply to TC Energy’s ring dam, leaving neighbouring property owners without recourse for compensation.

Taum Sauk’s reservoir held only 5.7 million cubic metres of water—less than one-quarter the volume of the 26 billion cubic metres required by TC Energy in Meaford. But in 2023, two dams holding a similar volume of water to that proposed by TCE collapsed above the city of Derna, Libya, under pressure from extreme rains, wiping out half the city below and killing at least 7,800. For Meaford residents, that tragedy provides a cautionary tale.

Extreme rainstorms are becoming increasingly frequent in Ontario and, according to the Insurance Bureau of Canada, they are forecast to become even stronger and more prevalent in coming years. One such extreme storm in 2009 turned a creek on our property that originates uphill on the base into a raging torrent, sweeping masses of limestone screed down the creek bed and lifting a culvert right out of our driveway, thus cutting off access to our home. There is no indication in the IPD that TC Energy’s design, begun in 2018, has been modified to take into account the growing threat of such increasingly frequent extreme weather events.

Nor is there any indication in the IPD that TC Energy has incorporated any provisions into its ring dam design to allow for an earthquake that could also provoke a catastrophic collapse. While even minor earthquakes are a rare occurrence in the Georgian Bay area, they have been recorded across the region. According to Allison Bent, a seismologist with Canadian Hazards Information Service, one of the four most powerful recent quakes in southern Ontario occurred on October 20th, 2005, when a 4.3 magnitude earthquake shook buildings in Owen Sound, only 30 kilometres west of Meaford. On May 30, 2024, a minor quake of 1.6 magnitude originated right in Georgian Bay, north of Wiarton. And as recently as January 27th of 2026, a 3.7 magnitude earthquake occurred in Orillia, 111 km south of Meaford, whose tremors were felt twice that distance away.

Such seismic events could weaken or destabilize the pumped storage project's 4.5-kilometre ring dam, with walls projected to rise 20 metres above ground. According to the IPD on file, TC Energy has not yet determined the height of the dam wall or what materials it will use, other than material that has been excavated "if suitable" (3.3.1)—an omission that prevents any meaningful review or comment on the project's safety.

Our worries about the safety of TC Energy's pumped storage project are based not on fear but on verifiable fact: the company's alarming safety record and its fine by at least one government for releasing "false and misleading" information.

TC Energy has never built a major open-loop pumped storage project before. Formerly known as TransCanada Pipelines, its expertise lies in constructing oil and gas pipelines across the continent. But despite seven decades in that business—changing its name to TC Energy in 2019 and spinning off its oil pipeline business to a sister company named South Bow in late 2024—the corporation has acquired one of the most worrisome records for pipeline leaks and breaks in its field.

In April 2025, its controversial Keystone pipeline, which carries Alberta crude from Canada to the United States, was shut down when it ruptured north of Fort Ransom, North Dakota, spilling an estimated 3,500 barrels of tar sands bitumen into an agricultural field. (NY Times April 8, 2025). That was not the first Keystone failure in that state. In October 2019, the same pipeline leaked 383,000 gallons of crude into a wetland about 155 miles north of Fort Ransom.

But the worst pipeline accident in Keystone history occurred on December 7th, 2022, spilling 13,000 barrels of diluted bitumen into a creek in Kansas pastureland that prompted clean-up costs of $480 million (US). (Financial Post Feb. 10, 2023) The company blamed the leak on construction flaws, including "bending stress" and" improper welding." (Sierra Club media release February 9th, 2023) But according to the US Pipeline and Hazardous Materials Safety Administration, TC Energy had increased the operating pressure on the pipeline days before the leak, creating a higher stress level than would normally be allowed. A PHMSA administrator pointed out that Keystone's safety record was "worse than the US average," and warned that "TC Oil's operating maintenance and/or integrity management programs may be inadequate to address the repetitious pattern of

failures related to the original design, manufacture and construction of Keystone pipeline. (Canadian Press, Bloomberg and Reuters, March 9, 2023)

Given that record, why should we trust TC Energy to ensure the safe construction of the proposed ring dam for an unprecedented pumped storage project?

In the IPD, the proponent claims it will meet "applicable design, engineering and safety standards," a meaningless assertion without specifying which regulations apply. But even that routine claim seems hollow given the fact that the B.C. government's Environmental Assessment Office fined the company's Coastal GasLink a total of $346,000 for failing to comply with environmental regulations and providing "false and misleading" information in regard to maintenance inspections.

In fact, that fine was not the company's first. Over the course of Coastal GasLink's contentious construction history, the BC government had issued 59 warnings, 13 stop-work orders and levied more than $800,000 in fines—tracing a larger pattern of negligence. The company blamed the charge of filing false information on an "unintentional reporting error." But more worrisome for the safety of the Meaford pumped storage project may be the fact that BC compliance officers found "inadequate erosion and sediment control" along the CGL pipeline route.

MISSING: FIRM DISCLOSURE OF THE DOCUMENTED TOXIC CONTAMINATION ON THE PUMPED STORAGE PROJECT SITE:

It seems unbelievable, even outrageous, that the proponent's IPD devotes little time or attention to what is arguably the project's greatest threat to the environment and public health: the documented contamination of the proposed construction site on an active military base, the 4th Canadian Division Training Centre, after eight decades of live-fire weapons training.

The chief reference to the risks from that military history in the IPD mainly underlines the need to clear the site of unexploded ordnance (UXOs). (Table 5-1 Plain Language Summary and IPD 3.3.1) Buried explosives could pose a threat to the safety of construction crews. But 80 years of live-fire weapons training has also left a legacy of toxic chemicals in the base soil. (Summary Table 11-1, IPD Table 9-7). As long ago as 2018, briefing notes on the project for Defence

Department officials—obtained under an Access to Information request—revealed that military experts were already warning TC Energy's construction plans could roil the contaminated soil, leaching dormant toxins into watercourses on the base and from there into the aquifers and wells of nearby civilians, as well as draining directly into Georgian Bay, the source of drinking water for hundreds of thousands around its shoreline. "Disturbing the soil would expose more of these elements to the surrounding area (air, land and water)," the notes stated. "Pollution of the water creates large concerns for marine animals' health and for any person drawing water from the bay for personal use."

Other DND briefing notes from the same ATI request estimated that the most basic level of remediation, clearing UXOs, would cost at least $50,000 per hectare and take from five to 10 years. But an extensive Level 3 chemical clearance of the site would be "more costly and time consuming." The conclusion: "It won't be any easy or cheap ride."

According to the IPD, TC Energy appears to have accepted the responsibility, and the expense, for clearing the site of UXOs. (IPD Summary, Table 5-1) But there is little mention of plans to remediate the toxin-riddled base soil, which has earned the 4CDTC nearly a dozen listings on the Treasury Board's inventory of Federal Contaminated Sites.

Among the most contaminated areas listed are a defunct asbestos dump and two refuelling facilities that have tested positive for PHCs (Petroleum Hydrocarbons) -- some of which have been directly linked to cancers in humans. (Treasury Board of Canada's Secretariat reports on Sites 10992002, 10992004, 10992006). Also listed are three shooting ranges riddled with PAHs (Polycyclic Aromatic Hydrocarbons) and organometallic compounds such as Methyl Mercury, a known neurotoxin, both found in the base soil and groundwater. (Treasury Board Sites 0008403 and 00025128 and 00025148.)

In May 2021, the Defence Department made a presentation to Meaford Council—while negotiating annual payments in lieu of taxes—that underlined the extent of the base contamination, complete with maps. As they showed, three large areas comprising nearly 6,000 acres of the 19,000-acre base are so contaminated they remain off-limits to current military personnel. On the map, one was labelled "Duds" (unexploded munitions); another "Non-Producing Duds;" and the third

“White Phosphorus,” widely used in incendiary tracer shells, which can cause deep and severe burns to the bone on contact, organ failure and often, death.

Despite that report, Meaford staff still expressed concerns “that the federal government hasn’t fully disclosed to the public the actual contamination on the lands,” particularly as it affected Georgian Bay. Council promptly passed a motion to demand full public disclosure of the contaminants from DND. There is no record that request ever received a reply. (Meaford Council Minutes May 31, 2021).

The potential for contamination of Georgian Bay, and thus of Meaford’s drinking water, failed to deter a subsequent council from voting 5-2 at a contentious public meeting two years later to conditionally support the project as a “willing host”—a legal requirement for renewable energy projects brought forward by the Ontario government—after being promised municipal benefits by TC Energy.

Seven other municipalities around the Georgian Bay basin, including Meaford’s closest neighbour, the Town of the Blue Mountains, have passed resolutions strongly opposing the project. The first was the Township of the Archipelago, near Parry Sound, and the most recent was its neighbour, Killarney, on the North Channel to Lake Superior in March 2026. Both are kilometres away from Meaford on the far eastern shore of the bay but cognizant that contamination of its irreplaceable freshwater resource is not likely to obey municipal boundaries.

MISSING: THE HEIGHT OF THE RESERVOIR DAM

The IPD clearly states the length of the proposed ring dam – 4.5 kilometres -- but nowhere does it reveal a more essential measurement: the planned height of the wall of the reservoir – the largest above-ground component of the entire project. It is an essential structure which could endure as a permanent feature of the local landscape, potentially visible from neighbouring shorelines and the ski hills of Georgian Peaks. The IPD says “visual studies have not been completed at this time.”

But the proponent has previously described the height of the dam as 20 metres, which, if realized, would give the proposed reservoir the appearance of a gigantic 135-hectare above-ground swimming pool. The IPD claims the project would be partly obscured from local view by its mere elevation on top of the escarpment

and a screen of trees. I would argue the opposite: Protruding above the installations of the 4th CDTC base, the dam risks emerging as a blot on the landscape profile of the Niagara Escarpment, a UNESCO-designated biosphere reserve, which is emerging as a major factor in the local tourism economy.

Thus, those omissions make it impossible for members of the public to offer informed comments on the project. It is shocking that the height of this pivotal structure has not been decided or included in the IPD. How is any member of the public to comment on the overall Project without this key information and its obvious implications for both Safety and Visual Impact?

MISSING: SPECIFICS AND ROUTE OF THE TRANSMISSION SYSTEM

At the first public information meetings about the project in 2019, TC Energy representatives spoke of overland transmission lines. An underwater route was only a vague possibility. But as time passed, underwater lines to Wasaga Beach were presented as the preferred alternative to connect the proposed 250-megawatt pump/generators to the grid. In fact, the option most often mentioned in the IPD is the "lake-based" Stayner transmission connection option. This echoes a November 2020 newsletter from the company which declared: "No overland transmission: To respond to concerns about overhead electric transmission on land, TC Energy is proposing an underwater transmission route from the project site to a location near Wasaga Beach and continuing underground to the Stayner Transformer Station."

In apparent confirmation, in April 2021 the company announced the purchase of eight acres of Wasaga Beach waterfront -- previously designated for a 22-unit housing project -- to bring its high-voltage cables ashore and connect them to underground lines running to Stayner.

Now, buried in a footnote in the Plain Language Summary of the IPD (Table 3-1) is this: "A preferred connection point or route has not been determined as input from the IESO and Hydro One will be required ... under the purview of the Ontario Energy Board."

Seven years after the project became public, the key transmission route to the grid seems not to have been decided – or revealed. In the IPD we learn that the company is unable to specify the route or the means of transmission (under water, over land, or underground.)

An all-land route between transformer stations at Meaford and Stayner, whether overhead or buried, would cross the scenic Beaver River Valley with its farms and apple orchards. But the concerned property owners there have not been briefed or given the opportunity to comment on this IPD.

It is astounding that the IAAC is asking the public to comment on such an incomplete project description. Furthermore, the proponent's IPD declares that the powerline(s) might not even be constructed or owned by TC Energy since the company is talking to electricity utilities about full ownership, shared ownership "or a combination of both." (IPD 3.1.8 and 6.2.8)

With this level of uncertainty, how is any member of the public expected to contribute meaningful comment about a major component that could have significant visual impact on the landscape -- the area's primary asset -- as well as a real financial impact on property values along the route ultimately chosen.

MISSING: AN ESTIMATED PROJECT COST

Perhaps the most fundamental fact of all is absent from the IPD: The project's cost.

From $2.2 billion when first made public in 2019, estimates from the proponent have risen steadily until being "capped" by the company at $7 billion in 2024. What might the price tag be now? The cost of TC Energy's Coastal Gaslink pipeline in B.C. more than doubled from its initial estimate of $6.2 billion to $14.5 billion.

There is no excuse for this lack of firm costing. Late on a Friday afternoon in January 2025, on the eve of the date when the writ was issued for the last Ontario election, the proponent was quietly handed $285 million by Ontario's government to complete "a detailed cost estimate," as well as "environmental assessments to determine the feasibility of the proposed project." Now, 14 months and $285

million of taxpayers' funds later, the company still has not been able to calculate or admit a final price on this controversial megaproject.

Why should the proponent be allowed to file an IPD without a complete cost estimate? Why should the proponent also be allowed to fudge the overall cost by carving up the project description into at least three components or silos?

(The pumped storage facility itself; the demolition, relocation and replacement of DND buildings and infrastructure on "the Meaford Tank Range" to make room for the reservoir; and the transmission system and route.)

For the public, this proposal is a single unified multi-billion-dollar behemoth. The pumped storage facility cannot function without power lines and the reservoir can't be built without relocating and rebuilding the army's garrison and infrastructure. The overall cost is what taxpayers and Ontario ratepayers will be obliged to pay for, perhaps for as long as the project's lifespan.

It appears that by dividing the project into sections, the proponent has tried to minimize the total impact on the environment and the surrounding region, as well as the true overall cost.

The proposal has been rejected twice by Ontario's Independent Electricity System as being of no net economic benefit to Ontario ratepayers. After the second rejection, then Energy Minister Todd Smith -- not content with what his own experts were telling him -- instructed the IESO to reconsider it, taking into account "societal-economic" factors. The IESO has never produced a report on that topic. But undeterred, the proponent commissioned its own study from the Canadian Centre for Economic Analysis (CANCEA) a private think tank that specializes in socio-economic analytics and providing specialized reports with "evidence-based ways" to help clients achieve their objectives. CANCEA'S 59-page report released in April 2024 is highly favourable to the project, particularly regarding job creation. While the proponent claims the project will employ approximately 1,700 workers during construction -- but only about 22 in permanent fulltime positions -- CANCEA managed to spin the total job number to 41,200 over 50 years using a novel concept it termed "people years." That headline-grabbing number appears unrelated to any recognized calculation of employment statistics. But the proponent cites the CANCEA report with that curious job creation number in the IPD (Summary 2.2).

MISSING: SERIOUS CONSIDERATION OF VIABLE EXISTING ELECTRICITY STORAGE ALTERNATIVES

Over the years the IESO refused to greenlight the proponent's pumped storage project, it approved more than two dozen battery electricity storage systems (BESS) which, together, have triple the storage capacity of TC Energy's proposal.

But the IPD downplays the advantages of battery systems. Citing CANCEA's report, it stresses the need for BESS to import critical minerals from abroad, particularly China. But the provincial and federal governments are pushing ahead to mine many of those minerals in Ontario's Ring of Fire. In addition, last November NextStar Energy opened Ontario's first large-scale lithium-ion battery factory in Windsor, Ont., for grid-scale electricity storage, touted as "a cornerstone of Canada's growing battery ecosystem." Hence, Canada is building domestic capacity to both mine critical minerals and produce grid-scale batteries.

Also, battery technology is rapidly evolving. At least three companies are reportedly developing 100-hour batteries. (Energy Storage News: March 19 and March 31.)

CONCLUSION:

The request for public comment requires the public to have sufficient information. Because the proponent has failed to include discussion of significant components of this project and chosen to withhold other key information from its studies and field work, the IPD does not provided adequate data or context to elicit informed public comment.

The IPD as registered shows a disdain not only for the public but for the IAAC process itself.

The information that *is* included describes a project that makes no economic sense, risks being rendered obsolete by developing technologies and poses unacceptable dangers to human health and safety.

With respect, I suggest this IPD, as presented, is not worthy or sufficient to warrant an Impact Assessment and in its current form, the project should not advance to any further level.

Submitted by:

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